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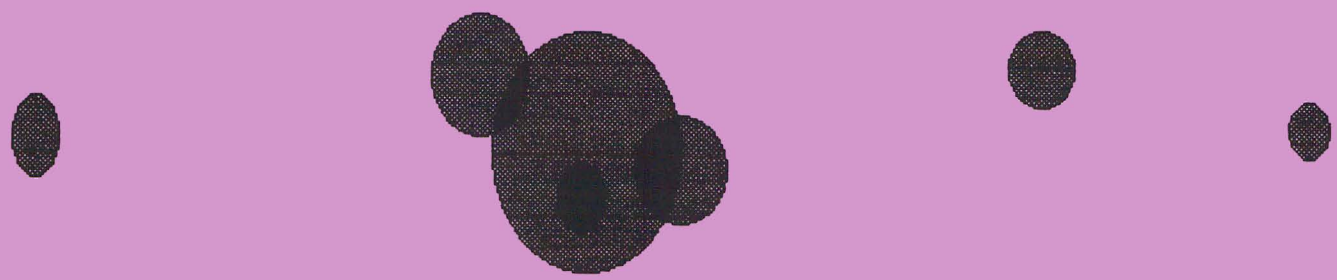
dieHard

the Flyer for commodore 8bitters

Last Flyer



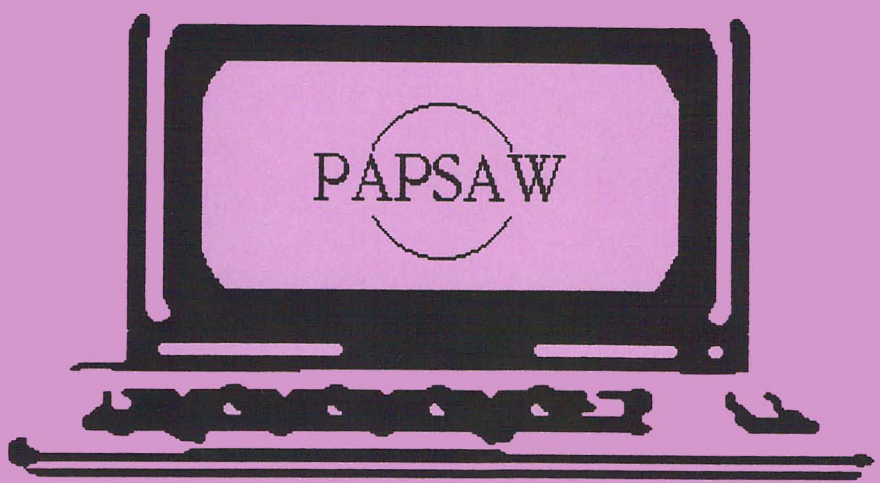
PRG

DOS and Don'ts

Tips

Reviews

and much,
much more...



Inside Stuff:

View From The Underground
by
Brian L Crosthwaite

I remember a time when people would talk of their machines. They spoke of size, power, and speed. How fast they would go -- in a quarter mile. Windows back then were tinted. They (usually guys) were speaking of their cars. Well, I was thinking about the **commodore** 64 computer. It occurred to me that the 64 is analogous to the Bug -- the Volkswagen Beetle. They are our trusty friend that will be with us though thick and thin. And people, usually the same ones who laughed at my Bug, were amazed at how well it accelerated and cornered. I remember one friend saying "I didn't think you could do something like that on a 64!" I just hope that in twenty-five years from now there will be as many Commodore Repair Shops around as there are Bug shops!

The truth of the matter is, well, I must confess, I am writing this column on an Epson PX-8 laptop computer. It is an eight bit, but not a "c" machine. No, I have not sold out. Commodore did show an elite few a laptop computer around the time the 128 was being introduced, but they never followed through with it. I'd love to have one of those to do my work on.

I plan to use the laptop to write when I get inspired at the park or in the hills when I'm away from the big machine.

Actually, this will give me more time to be with my son, and I can blame my misspellings on his constant tapping on the keyboard. (He'll be two this month.)

I have a 64k RAM to store my documents in a nonvolatile REU. I also have **Wordstar** and **BASIC** on ROM chips inside the machine. The ROMs plug into chip sockets, sort of like a cartridge on a VIC or 64. In the REU there is a built-in modem and another socket that contains **DAKCOMM**, a small, but powerful, easy to use telecommunications program -- no frills. I can access the REU as drive A; the ROMs are drives B, C and I.

There is also a micro cassette designated as drive H. It also has a 3.25 inch disk drive that plugs into the serial port that is accessed as drive D.

Copying files is easy as p - i -p -- **PIP** that is. This is a **CP/M** machine. It has an 80 column screen with six rows. Programs with a full 25 lines will work, although only part of the screen is visible at one time.

The modem is what brings the synergy into existence, maybe I should say symbiosis. The total harmonic existence of the two separate systems as two entities that are one.

With a modem I can transfer files via the phone to my Commodore for finalizing.

CP/M is something we want to cover and we are currently looking for an "expert" to write about and share **CP/M** knowledge and experience. Keep in mind that we are now able to pay for articles. Which leads me to my next topic.

dieHard has been growing in a steady trickle. We are now in the middle of a mass mailing campaign to let people know we are here. There's strength in numbers and as we grow we will be going to a press rather than a copy machine. This all means that print will costs drop, putting us in a better position to offer incentive to programmers. Things like money, that sort of thing. Which in turn, leads to better support.

A note about printers. If you can afford a printer, get one. If you can afford a color printer, get one. The better your output devices, the better your output! COLOR, Color, color -- COLOR!

Speeking of output, lot's of people are pleased with the our new look. 75dpi is the secret. It spreads the letters out making the font wider and fuller.

We are still trying to find a way to get a complete **Post Script** file from **geoPublish** so we can print at 1200 dpi!

On with this month's issue!

READY.

■

Just Tips
by
Brian L Crosthwaite

One of the cool things about the **commodore** computers is the old datassette. Once in a while I run across an old cassette at a second hand store or a computer store that looks intriguing. If you run across any of these old program cassettes, here are some things to keep in mind. Programs saved on a PET will not load into a 128, 64 or VIC without a PET emulator. Plus/4 and C-16 cassettes cannot be read by any other **commodore** computer -- and visa versa.

* * * * * *

One of the all time great inventions is the disk notcher. This handy device allows you to use both sides of a double sided, double density disk in your 1541 disk drive. Due to the nature of the inner lining of a disk, manufactures of disks recommend that you do not use one. I'm sure you've heard that before. The inside has a velvet-like lining that slants towards the direction of spin. It collects any dirt that lands on the disk by pushing it up (by the disk) into the fibers. If you spin the disk the opposite way, the dirt will come out of the fibers and can damage your disk, or worse yet, the drive head. I recommend you never notch an old disk that may have lots of dirt built up, it just sounds like a disaster.

As that disk notcher gets older, it may not be as sharp as it once was. To avoid that pesky little piece of disk sleeve that doesn't clip all the way off, I have found that doing the following has at least temporarily solved the problem. When I notch the disk, before releasing the notcher, I gently pull the notcher off of the disk and along with it comes the piece that would have had to be torn off or cut with scissors later. Do this slowly so you don't get the outer lip of the disk caught on the notcher. You may find the notch-pull-release method to save you some time and money.

READY.
■

Just A Note

Anyone interested in the **Chernobyl Nuclear Simulator**, you don't have to get the Solid Gold package from COSMI to get it. On page 75 of Software Support International's Spring 1993 catalogue on the bottom of the right column it is listed in the Liquidations and Closeouts for $7.97. (Software Support International, 2700 N.E. Andresen Rd., Suite A-10, Vancouver, WA, 98661 for info!) So now you know.

READY.

ATTENTION: Writers!

LynnCarthy Industries has lunched a massive expansion campaign to spread **dieHard** all over in mass quantities. This means we should be making some actual profit, you know that thing all young struggling companies hope to encounter at one time or another.

We've managed to stay afloat for almost a year now, putting everything we made into printing and that sort of thing.

The May 1993 issue will be literaly rolling off the presses – Post Script or not. This will lower our printing cost. Advertising space is be available. This means we can pay submitters money upon publication! So send your programs and articles on in. **dieHard**, P O Box 392, Boise, Idaho, 83701.

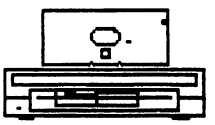
Be one of the first to get in as the **Flyer** goes **Magazine**!!! If you have an idea for a column and think you're the one to write it, send it in! You just might find yourself on the staff of **dieHard the Magazine for commodore 8bitters!**

READY.
■

REVIEW!

by
Brian L Crosthwaite

Key
* * * * * Excellent
* * * * Great
* * * Good
* * Poor
* Rotten



MoJo Mag

from Bob Smulkowski
Rating: * * * *Great

Mojo What? **Mojo Mag**, is what. It's a disk-based magazine produced by Bob Smulkowski on a bi-monthly basis chock full of PD programs.

Upon typing:

LOAD":*",8:<SHIFT><RUN/STOP>

the screen reads:

THE MIGHTY MOJO MAG PROUDLY BEGINS
(screen then turns black)
ITS SECOND YEAR OF PUBLICATION...

HELLO, UPCHUG!

The screen fills up with squares, scrolling this message off the screen and the front cover appears. This month -- THE WEIRDWARE ISSUE! Press a key and the screen flashes -- it's loading something...

One thing that was a little annoying was when something would load the screen changed to white and the loading and running characters appeared on the screen in black. But this is a trivial point and not really all that hard to fix.

The programs on the February disk were DEMOs and you know how I love DEMOs! My favorite was an animation called **Pepsi Spin**. A digitized still life with some fruit and a spinning Pepsi™ can -- you know one of the more useful programs for the home computerist -- "...when are you coming to bed Dear?"

Included in this issue are **Morse Code 64**, and **Kitchen Metrics**. Both helpful programs for the HAM operator and family chief.

One program I found particularly fascinating was the **Burp Construction Kit**. Now some German programmers had some free time on their hands to write this. It's actually called **Rulps Const. Kit**, and it is what the name implys. Actually it is a collection already constructed of sampled burps and belches that you can play back at a variety of speeds. Pressing 1 though 9 gives you different burps, +/- changes the speed and <F1> plays a long string of belches and burps in a preselected order. This is the kind of thing that computing is all about. Wonder how much beer they had to consume to produce just the right sound... ...wonder how much beer they had consumed before they came up with the idea!

There is even a digitized picture of Bob Smulkowski in this issue. Also on this disk is the **BB-Reader** program to read **The Write Stuff** files. Here you will find text about **Mojo Mag** and **Fone Co vs BBS**. You can then return to the menu in a round about way, so you don't have to reboot.

The price is $1.50 per issue if you can contact Bob Smulkowski in person, try a University Place Commodore Home User Group (UPCHUG -- great name!) meeting. Otherwise, you'll have to pay the mail order price of $3.00. Anyone producing a disk, such as a User Group's Disk of the Month, can trade disks with him. I don't have subscription rates.

This one gets * * * *

For more info...

Mojo Mag
Robert J. Smulkowski
7240 Stibgen Rd NW
Olympia, WA 98502

Got something that needs underground exposure? Send it in and you'll get international exposure! **dieHard**, ATTN REVIEW!, P O Box 392, Boise, Idaho, 83701. Hardware, software, firmware.

READY.
■

geoTips

by
Brian L Crosthwaite

Did I?... geoSpell When you add words to your personal dictionary, especially when variations of one word get added, make it a habit to always select "replace all" after coming back to the spell checker, rather than "accept word" or "accept all". I find myself correcting a word that is not in the dictionary then adding it to my dictionary. Sometimes it was spelled correctly in my document sometimes not. Since I'm usually thinking of a zillion things, simply selecting "replace all" ensures that I don't space off a word that had been misspelled, just in case I forgot thinking I was just adding a word and not correcting it too.

Tab Tip geoWrite If you have troubles with tabs in your geoWrite document, be sure to check that only the left justify is selected for that line. If you need more tabs than allowed, use a font where the width of each letter is identical, then you can use spaces to line things up. The Commodore font with **GEOS** is ideal for this.

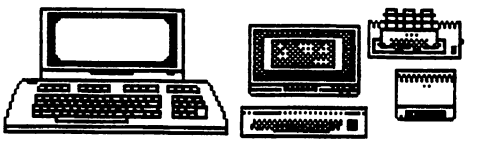
The Long Long wait geoPublish Ever have this happen? You're working in **geoPub** in the Graphics Zoom mode. You go to exit and the mouse goes too far. The screen scrolls and now you have to wait half a century for everything to redraw before you can do anything. After the throbbing in you head subsides and you reassemble your mouse, simply type <C=><T> and you will go right into text edit mode. From there you can go anywhere without having to chance the dreaded redraw syndrome!

Shave It Off GEOS When working in an REU with a public domain program that alters an existing file or program, sometimes things get a little distorted, at least in the area of keeping track of file size. Sound familiar? If this happens you will know when you go to copy the program to a floppy disk and you get that disk error telling you there is not enough room. Sure you've seen them, haven't you? Well, at any rate, check the info option under the file menu after highlighting the file in question. You may see the file size to be 3608k or some awesome amount. This is what is keeping your program from being saved to disk. All is not necessarily lost. Place the file into the waste basket at the bottom right of the **DESKTOP**. Then pull it out. Check the info option. Reasonable size? You may have succeeded. I say ***may have***. Save the file on an empty disk, if possible, or on a disk that doesn't have anything important on it. Now check out the file on the disk. If you saved the day -- great! If not, it may be time to start over.

Beware of PD **GEOS** programs, check them out before you alter anything important! And make sure you make a backup of anything you plan to alter, it can save you a lot of time and grief.

READY.
■

PAPSAW



by
Brian L Crosthwaite

The Dynamic Keyboard Loading Technique Explored

The Dynamic Keyboard Loading Technique (DKLT) is a simple trick that enables your BASIC programs to load other BASIC programs. Say you want to have a cover screen or a menu that loads the main BASIC program., you could place 'LOAD"filename",8' into your code. If the program you are loading is small, this can sometimes work. But once you start dealing with larger programs this will not work, at least in most cases. What to do?

The DKLT. Basically, what it does is print LOAD"filename",8 and RUN on the screen as if someone typed it then hit <RETURN>. The new program loads and runs ***after*** the first program stops running! To do this, it only takes a couple of lines of code (actually, you can put it in one line if you like).

```
10000 PRINT"<CLR><3 CRSR DOWN> LOAD"+CHR$(34)+"filename"+CHR$(34)+",8" : PRINT "RUN<HOME>"
10010 POKE BUFFER SIZE,2 : POKE AD1,13 : POKE AD2,13 : END
```

Where ***filename*** is the name of the program you wish to load and run. See Table 1 for BUFFER SIZE, AD1, and AD2.

BUFFER SIZE	AD1	AD2	admax	computer
198	631	632	640	64/VIC
208	842	843	851	128
239	1319	1320	1328	+4/16

Table 1 (The keyboard buffer extends from AD1 to admax)

AD1 is the first address in the keyboard buffer, AD2 the second and ad max is the last address in the keyboard buffer, this is included for future reference. BUFFER SIZE is the location that tells the computer how many characters are in the keyboard's buffer. When the program encounters the END command the first thing the computer does after hauling execution, is check this buffer address to see how many characters are in the buffer, then it reads out the keyboard buffer. Ever play a game that uses the keyboard? After you exit, a bunch of letters appear on the screen. After the game stops running the keyboard buffer gets dumped to the screen.. In this case there are two characters in the buffer, both carriage returns. The print statements places the LOAD and RUN statements on the screen in their proper syntax and ensures the cursor position is where we want it to be when the program ends. The poke statements tell the computer there are still two characters in the buffer and when the program ends the computer empties the buffer out by printing the contents to the screen – the two carriage returns. The first one causes the LOAD statement to be executed then the second one executes the RUN command. The program that just loaded runs.

Now, with the 128, +4, and 16 (and PETs with BASIC 4) you can use:

```
10000 DLOAD "filename"
```

This should work even when loading large programs... famous last words. If you have any problems loading a program with the DLOAD, try the DKLT.

Let's elaborate on this to make it more versatile. First let's write a simple loader program. It will have a simple screen that says it's loading the program. (The POKE SC,0 at the end of line 1000 is screen color, see Table 2.) Save it as PRG1:

```
1000 PRINT "<CLR><CTRL 2><10 CURSOR DOWN> LOADING THE MENU" : POKE SC,0
1010 PRINT"<HOME><CTRL 1> LOAD"+CHR$(34)+"MENU"+CHR$(34)+",8" : PRINT "RUN<HOME>"
1020 POKE BU,2 : POKE AD1,13 : POKE AD2,13 : END
```

(SAVE"PRG1",8 <RETURN>)

SC	computer
53281	64/128
36879	VIC
65301	16+4

Table 2 SCREEN COLORS (On VIC use POKE 36879,11 to make a black screen with a cyan border)

To see this technique in action, let's write a simple program that will tell us we when have succeeded. Save this one as MENU:

```
10 REM **** MENU ****
20 PRINT "<CLR><CTRL 2><10 CRSR DOWN> HEY! IT WORKED!!"
```

(SAVE "MENU",8 <RETURN>)

Load and run PRG1. If all goes well, you should see white letters on a black screen that say, "LOADING THE MENU." The drive light should go on and then the screen should read, "HEY! IT WORKED!!" If this did not happen, double check your code and make sure you typed the right numbers in (be sure you have the right values for your specific machine. See Table 1 above).

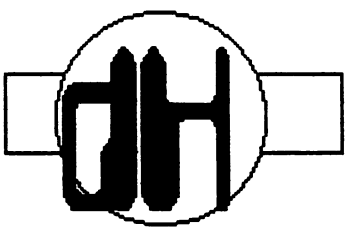
If you want to make it hard for someone to figure out what is going on in the code of your program, you can POKE the characters into the screen memory rather than print them and then do the pokes already discussed as before. But remember this, hackers like myself, who know many of the addresses and poke codes by heart and will think you're a bit paranoid – but hey, that doesn't mean they're not out to get you! Another thing to keep in mind is that the reason people may be looking at your code is to learn from it. The more people can learn, the more they can share...

```
10 PRINT "{ctrl 1} : POKE SC,0
20 FOR A=SA+0 TO SA+9 : READ P: POKE A+40*3,P : NEXT : REM replace 40 with 22 for VIC
30 FOR A=SA+0 TO 2:READ P:POKE A+40*7,P : NEXT        : REM see table 3 for value of A
40 POKE SA,32 : POKE BU,2 : POKE AD1,13 : POKE AD2,13 : END
50 DATA 12,15,1,4,34,13,5,14,21,34,44,56
60 DATA 18,21,14
```

Paranoid, paranoid... Table 3 shows the sart address for the text screen, SA.

SA	computer
1024	64/128 (40 column 128)
7680	VIC
3072	16+4

Table 3 TEXT SCREEN START ADDRESSES



PART II

Requesters and gadgets. What are they and what are they for? Quite simply, requesters are little windows that open up on your computer's screen requesting input from you. **GEOS** users are familiar with these although they are referred to as dialogue boxes. Those who have seen the windows in the **FINAL CARTRIDGE** and other similar European utility cartridges may also be familiar with these.

Gadgets are the little thingies inside the requester that you point and click on with your input device in response to what is being asked.

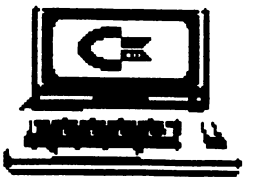
Sixtyfourdom has grown more acquainted to the highlighted menu for making selections. The window that opens up saying "Are you sure?" is an example of a requester. There will sometimes be a "[Y/N]" in the window, this is similar to a gadget.

READY.
■

Archaic Computer

The Computer Store Of the Past

by
Brian L Crosthwaite



For years I'd heard of a game called **KICKMAN**. I remember seeing the ads for it and hearing some vague things about it. I had never seen the game itself nor played it, until about a year ago. But this image was built up in my mind of the most fantastic game ever written for the **commodore 64**.

This was back when the Boise State University Book Store carried the 64 and SX 64 computers -- 1983. I guess it was a Bally/Midway Arcade Game and it may well have been in the game room, only a few yards away. This was during a time I was recovering from the humiliation of being the worst **PAC-MAN** player on the planet, so the only games I ever played there was pool and pinball.

Of course, now I am the best **PAC-MAN** player I've ever met... ...now that nobody plays it anymore. Want a hint? Don't listen to your friends when they say stupid things like, "Now get the fruit -- quick before it disappears!"

Back to the present where we're talking about the past. This month we take a look at **KICKMAN**, from the edge of yesterday to the brink of tomorrow.

KICKMAN

1982 Commodore Business Machines
cartridge
Reviewed by:
Brian --
The AC-Man Himself **Crosthwaite**

KICKMAN is an arcade game of pure skill. The only strategy is to return to the center of the screen for the next drop. The drops are Balloons, ghosts and PAC-MEN that fall down for you to catch or pop.

The game starts with the screen showing a man on a unicycle in the streets of the city. Twelve balloons are up over his head. Pressing fire starts the game. Basically what happens is the balloons drop one at a time. You maneuver the KICKMAN back and forth to pop the balloons on his hat. If you miss one you can maneuver his cycle so he can kick the balloon up in the air, but the next balloon will go ahead and drop, so you've go to be fast to pop it too. Be careful not to miss a balloon, your little man will fall off his cycle and you have to start all over. This level is fairly easy and it kind of shows you what to expect.

The next level is reached after the balloons are all gone. This level has two PAC-MEN among the balloons as well as another column of balloons. This time you catch the balloons until there are four on the KICKMAN's head. Then a PAC-MAN eats them all and then sits on his head -- if you catch the PAC-MAN.

This is a fun game that allows you to gain the skill needed to take you to further into the game and thus further challenge you. The buildings are keyboard graphics and the balloons, PAC-MEN, ghosts, and KICKMAN are either redefined character graphics and/or sprites. The music is simple, but pleasant.

The instructions are simple and to the point.

Everything needed to get started is there, plus the scoring on each object is included.

This game is nonviolent, except for popping balloons -- they go poof more than pop. The animation, although simple, is well done. A great game for little kids as well as adults. I give this on: * * * *

READY.
■

available from...

KICKMAN is available from TENEX Computer Express, 56800 Magnetic Drive, Mishawaka, IN, 46545 for about $5. Write for details.

Q & A

by
Brian L. Crosthwaite

Q: I recently had a rather rotten experience with my datassette. I forgot to write down the counter number before I rewound the tape. I then typed in a program from your listings. I went to save it and discovered what I had done. I had no way of knowing where on the tape my program had ended. I typed NEW, and loaded the last program, typed NEW again and started all over. How can I avoid this in the future?

A: After a program is saved, writing the counter number down is ideal, but not always necessary. Even if you make it a habit, on occasion you're going to forget. When you go to use the tape again you have to find the end of the last program. It's no big deal if you don't have a program in memory. But what if you do? Try this:

type:
VERIFY"filename" and <RETURN>, "filename" being the last program on the tape (be sure your counter is zeroed to the beginning of the tape). After awhile (and it may be a long while), you should eventually see a verify error. This just means the last program on tape does not match the one in memory. You are now at the end of the last program. Don't forget to press stop on the datassette before saving!

Q: I have an MPS 1250 and can't get any of the Commodore-type print drivers in GEOS to work with it. Any suggestions?

A: I recommend placing the dip switches 2, 3, and 4 in the on position and using the Epson FX-80 driver.

Q: Someone once told me there are two versions of the Atari 810 disk drive, one that had the reputation of dying easily and one that did not. This guy is selling his old drive, but I don't want to buy something that is going to die after I use it a couple of times. How can I tell if I'm getting the clunker or the good one?

A: Open the front door on the drive and look inside. In normal room light you should see part of a PC board. If you do, buy the drive. If you don't see the PC board then the drive is most certainly the dreaded clunker drive. You might buy it for parts, but I don't know of any compatibilities between the clunker and the good drive.

READY.
■

DOS and Don'ts

by
Joe Ellis Rea

DOS and Don'ts reprinted with permission from LOADSTAR. **The Complete DOS and Don'ts** is available on 1541 disk for the 64 for $9.95, plus $4.50 Shipping for 2nd day delivery from Softdisk, P.O. Box 30008, Shreveport, LA, 71130. The **DOS Manager** for the 64 is available for $3.00 ($5.00 Canadian) from LynnCarthy Ind., P.O. Box 392, Boise, ID, 83701 and is in the public domain.

The SCRATCH Command

The format of the SCRATCH command is:

@S:filename

So, in this case, we just type:

@S:MENU
(Delete old MENU)

{arrow back} MENU
(Save new MENU)

SAVING MENU00,OK,00,00
(Status)
READY.

If you use the Wedge version of SAVE ('{arrow back} filename'), you automatically get a Disk Status display when the save is done (or bombed)! At any rate, since the old MENU was SCRATCHed, there was no MENU currently existing. The reason this method is not particularly safe is that if a power failure or some other catastrophe should occur between the time you SCRATCH the old file and the time you SAVE the new file, you are left with no file. A better way is to change the name of the old version without SCRATCHing it. (You can SCRATCH it later if you want, but backups never hurt anyone!) To change the name of a file, use the RENAME maintenance command. The format is:

@R:newname=oldname

So, in our case, we can type:

@R:OLDMENU=MENU
(Rename old MENU)

{arrow back} MENU
(Save new MENU)

SAVING MENU00, OK,00,00
READY.

and we are done!

If a file is not 'CLOSEd' after being 'OPENed', the directory will show an asterisk ('*') just before the file type, and a file length of zero. DO NOT SCRATCH SUCH A FILE!! There is a way to get rid of all such files on a disk. If, for example, we find:

```
@$
0  'MY FIRST DISK  ' M1 2A
1  'DOS WEDGE'     PRG
5  'DOS 5.1'       PRG
14 'MENU'          PRG
0  'MENU FILE'     *SEQ
601 BLOCKS FREE.
```

that means that 'MENU FILE' was never 'CLOSEd'. More than likely, it is too late to close it now, so just type:

@V

This is the VALIDATE maintenance command. It checks all the blocks of all the files on the disk, and in the process, removes any unclosed files. It can take some time depending on how much of the disk is used.

Wild Cards

Let's find out how to specify more than one file at a time with some old commands.

The secret to this is to use 'wild card' characters. A wild card in poker or other card games is a card that can stand for any other card. The wild card characters work the same way.

The wild card characters are the question mark ('?') and the asterisk ('*'). The '?' can stand for any one character, and the '*' can stand for the remainder of a file name. For example: Suppose we have a disk in our drive that has 6 files, such that a directory listing (using DOS WEDGE) produces:

```
0 "MY OWN DISK    " MD 2A
45  "FILE MAKER"  PRG
9   "FIRE 1"      PRG
3   "FILE 1"      SEQ
6   "FILE 2"      SEQ
5   "FILE 3"      SEQ
12  "FILLER"      PRG
3   "JUNQUE"      PRG
601 BLOCKS FREE.
```

With the above directory, the following file names produce the following matches:

FILE NAME	MATCHES
'*'	all files
'F*'	everything except 'JUNQUE'
'FILE *'	'FILE MAKER' 'FILE 1' 'FILE 2' 'FILE 3'
'FILE ?'	'FILE 1' 'FILE 2' 'FILE 3'
'FIL???'	'FILE 1' 'FILE 2' 'FILE 3' 'FILLER'
'FI?E*'	'FILE MAKER' 'FIRE 1' 'FILE 1' 'FILE 2' 'FILE 3'
'??????'	everything except 'FILE MAKER'

Note that an asterisk is the same as enough question marks to finish out a 16-character file name. Contrary to the manual, you cannot put an asterisk anywhere except as the last character. For example, you could NOT use the file name 'FIL*ER' to match both 'FILE MAKER' and 'FILLER'.

READY.
■

Not So Stories

That Damn Cursor Part II

by
Brian L Crosthwaite

Now don't call me a cynic, but don't you think there is a reason they call that damn thing a cursor? I mean it is your only doorway into the brain of the computer. Oh sure, there's the pointer or mouse, but they're just over glorified cursors, all of which are guilty of causing, shall we say, higher than normal blood pressure.

On the other hand, I have voice recognition on my computer. But I find myself yelling the same command over and over, slapping my head in disbelief that I'm even trying to talk to my computer. In fact, I have found that my computer responds better when I don't have the recognition card turn on! I find yelling at the cursor is also much more satisfying.

Of course, slapping myself hasn't resulted in any noticeable damage, however the escape key doesn't always work any more.

When programming for input, I try not to let the cursor rear its ugly head. I make it so all you see is a requester for input, you type and hit return. No cursor to accidentally move down. You can't loose track of things like screen content. You can't clear the screen. You can't even type anything in actually. My program anticipates your answer and enters it. If the input is incorrect, it's the damn cursor's fault!

Like I always say, "The buck stops somewhere over there!" If you have ever gotten mad enough to throw your computer out of a forty-story building, just be glad it wasn't your laptop! You can always use it as a door stop, or perhaps something to unplug a stopped up toilet with.

I never said life was easier since computers. Doctors must be pretty happy now that over thirteen million of us own these dad burn things.

Did you hear the one about the guy who'd rather chew his arm off than use his mouse... ...more on this as the story develops.

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■

Trader's Corner

Got something to trade? Need something? Try here. Maybe one of our readers has just what you're looking for. Or perhaps they want what you have. Trader's Corner is free to anyone looking to trade or buy. (If you want to sell something you'll have to take out a classified, they are $5.) All **TCs** will be listed for three months, unless we hear from you telling us that it is no longer needed.

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Attention Readers:

I messed up! Someone sent me a letter stating that they had magazines to trade, the letter got set aside and now can't be found!!!! If you wrote a letter like that and didn't see anything appear in the **Trader's Corner** send me a note and I'll get you listed right-away. My apologies to the party concerned.

-Brian

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Rarities

by Brian L Crosthwaite

Ju-Ju Board BBS (ever heard of **Mojo Mag**?), 300/1200/2400 bps, 24 hrs - 7 days. 1 (206) 866-0983. Run by Robert J. Smulkowski out of Olympia Washington -- is this guy busy or what!?!?

KF-PD Software has a large selection of Public Domain software for the Plus4 and C16, as well as the 64 and 128. KF-PD Software, P. O. Box 470464, Los Angeles, CA., 90047-0464, for more onfo.

B Bug, Busy-Bee User Group puts out a monthly newsletter that supports **The Write Stuff** word processor. $20 per year for 12 issues ($21 Canada and Mexico, $29 other countries). For info write to: Busy-Bee User Group, Theodore E. Seitz, Editor, 3 Paseo Cuacha de Toro, Arivaca, AZ., 85601-0003.

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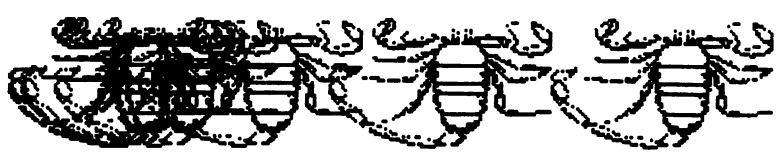

PRG

by Brian L Crosthwaite

Time factors have caused PRG to get real small this month, in fact it almost didn't happen! But I got a request for an all-purpose BASIC clock and a DEMO of the PAINT and CIRCLE commands for the Plus 4, so I thought this would be a great opportunity to do that!

Listing 1 All computers. Listing one is a generic clock that can be run in BASIC. The input statement is not oops-proof, so take care to enter a leading zero for times whose hours are 9 and less. Be sure to cover all the characters on the screen with numbers to avoid an illegal quantity error.

Listing 2 (runs on Plus4, C16 and C128) shows you how you can use PAINT on objects without filling in the wrong areas with the wrong color. By covering the outermost areas with the new color you can easily add the second color where you want it. What it does is place circles (lines 1050 - 1062) on the screen, then paints (line 1064) that area. Lines 1070 through 1074 re-trace the same circles in a different color. Line 1076 then paints the center belt.

Back on line 1030 are some numbers that you can tweak to see how the arc (A), start angle (S), and finish angle (F) work. Angles are in degrees, I know, kinda strange — most of the time your computer works in radians. To see your changes in action, line 1120 already has F and A in the line, but not S. Replace the 36 with S to see the changes in your values.

Listing 3 (for the C128) is a program called **Cosmosis**. Enter numbers for the maximum x and y axis. Using the scale command the program will draw the Cosmosis in all it's glory, but I recommend running the program when you aren't planning to use the computer for a few hours — especially if you use the CIRCLE command instead of the DRAW command!

Simply hitting <RETURN> for each prompt will cause the default values of 719 by 329 (this imitate **VGBASIC** on with an EGA card).

Listing 4 is a taste of things to come. Master programmer Scot Derrer has over the years written programs leaning heavily toward the mathematical realm of reality. This program is a demonstration of cellular automaton — the mathematical equivalent of an array of simple robots programmed to do only certain tasks.

There have been loads of these things published, but I have yet to see one in BASIC. Since BASIC is so readily available to the **commodore** user, it is easier to understand what is going on from a mathematical point of view by simply listing the program.

You may recognizeognize this as the game of ***Life***. It can prints out to **commodore** compatible printers. Pressing any key should end.

Listing 1 All

```
1000 REM COPYRIGHT 1993
     LYNNCARTHY IND.
1010 REM ALL RIGHTS RESERVED
     :PRESS RETURN TO RESET
1020 REM DIGITAL CLOCK
     :FOR ALL COMPUTERS
1030 REM BY BLC
     :NO SPECIAL FORMATTING
1040 INPUT "[2 HOME][CLR]
     [9 crsr down]ENTER TIME
     [2 crsr right]HHMMSS
     [8crsr left]" ; TI$
1050 GET RS$ : IF RS$ = CHR$(13)
     THEN RUN
1060 PRINT "[CLR][crsr down]";
     LEFT$(TI$,2) ; ":" ; MID$(TI$,3,2) ;
     ":" ; RIGHT$(TI$,2)
1070 GOTO 1050
```

Listing 2 +4, 16, 128

```
0 REM
100 rem copyright 1993
    LynnCarthy Ind. All rights
    reserved.
1000 GRAPHIC 3,1
1010 XM=159 : YM=199 : XC=XM/2 :
     YC=YM/2
1020 COLOR 0,1,1 : COLOR 1,3,3 :
     COLOR 2,9,4 : COLOR 3,8,4 :
     COLOR 4,1,1
1030 A=0 : S=37 : F=324
1050 CIRCLE 1,XC,YC,50,70
1060 CIRCLE 1,XC,YC,50,10,90,270
1062 CIRCLE 1,XC,YC+10,50,10,98,262
1064 PAINT 1,XC,YC+19
1070 CIRCLE 3,XC,YC,50,70
1072 CIRCLE 3,XC,YC,50,10,90,270
1074 CIRCLE 3,XC,YC+10,50,10
     ,98,262
1076 PAINT 3,XC,YC
1090 PAINT 3,XC,YC+30
1100 CIRCLE 2,XC,YC,68,40,44,316,A
1110 CIRCLE 2,XC,YC,58,39,57,303,A
1120 CIRCLE 2,XC,YC,79,39,36, F,A
1140 GETKEY E$ : PRINT "[ctrl 2]"
1150 GRAPHIC 0 : LIST
```

Listing 3 128

```
0 REM
1000 REM COPYRIGHT 1993
     LYNNCARTHY IND
1001 INPUT"ENTER BOUNDRIES
     (X,Y)";XM,YM
1004 IF XM < 320 OR XM > 32767 THEN
     XM = 719
1006 IF YM < 320 OR YM > 32767 THEN
     YM=329
1010 GRAPHIC 1,1 : SCALE 1,XM,YM
1020 F=-100
1030 XC=XM/2 : YC=YM/2
1040 FOR R=0 TO XM * 3 STEP 1 : F=F+1
     : IF F=0 THEN F=1
1050 FOR N=1 TO 360
1060 Y=INT ( YC+R * SIN ( N/F *
     [shift ↑] ) )
1070 X=INT ( XC-R * COS ( N/F *
     [shift ↑] ) )
1080 IF X>XM OR X<0 OR Y>YM OR Y<0
     THEN 1100
1090 REM CIRCLE PT,X,Y,N : PT=PT+1 :
     IF PT>1 THEN PT=0 : REM TAKES FOR
     EVER, BUT IT'S COOL!
1092 DRAW PT,X,Y : PT=PT+1 : IF PT>1
     THEN PT=0
1094 GET E$ : IF E$=CHR$(13) THEN
     GRAPHIC 0 : GOTO 1001
1100 NEXT N : NEXT R
1110 GETKEY C$
1114 GRAPHIC 0 : GOTO 1001
1120 END
```

Listing 4 All

```
100 PRINT "          CELLULAR
    AUTOMATON "
110 REM: R. SCOT DERRER 1993
120 PRINT "              PATTERN #1A "
130 PRINT "   OUTPUT TO:"
140 PRINT "          S  - SCREEN""
150 PRINT "          P  - PRINTER"
160 INPUT "   YOUR CHOICE:";O$
170 IF O$<>"S" THEN IF O$<>"P"
    THEN100
180 IF O$="S" THEN W=40 : PRINT "";:
    GOTO 220
190 W=80
200 OPEN 4,4
210 PRINT#4
220 DIM R(W)
230 FOR I=1 TO W
240 :  R(I)=0
250 NEXT
260 R(W/2+.5)=1
270 DIM S$(1)
280 S$(0)=" "
290 S$(1)="  "
300 B=0
310 C=R(1)
320 FOR X=1 TO W-1
330 :  IF O$="P" THEN
    PRINT#4,S$(R(X)); : GOTO350
340 :  PRINT S$(R(X));
350 :  A=B
360 :  B=C
370 :  C=R(X+1)
380 :  R(X)=0: IF A+B+C=1 THEN R(X)=1
390 NEXT
400 IF O$="P" THEN PRINT#4: GOTO420
410 PRINT
420 GET A$: IF A$<>"" THEN
  CLOSE4 : END
430 GOTO300
```

Remember — it PAY$ to be published! **dieHard**, ATTN: PRG, P. O. Box 392, Boise, Idaho, 83701.

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